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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/536,851	05/27/2005	Yann Georges Lepage	20010.2USWO	4648
52835 7590 11/06/2008 HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902				
EXAMINER				
KO, STEPHEN K				
ART UNIT		PAPER NUMBER		
1792				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/536,851

**Applicant(s)**

LEPAGE ET AL.

**Examiner**

STEPHEN KO

**Art Unit**

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-23 is/are pending in the application.  
4a) Of the above claim(s) 14-23 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 12 and 13 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 27 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 27 May 2005  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election with traverse of group I (claims 12-13) in the reply filed on 28<sup>th</sup> July 2008 is acknowledged. The traversal is on the ground(s) that there is sufficient correlation between the process and apparatus claims to qualify for unity of invention, since Francis (US 4,899,416) is directed to the cleaning of boat rails, not a towed streamer; and a cleaning and polishing flap is moved by wind. Applicants' attention is drawn to the fact that for apparatus claims, if the prior art structure is capable of performing the intended use, then it meets the claim. Although the process and apparatus claims share the special technical feature, this special technical feature does not define a contribution over the prior art, and no single general inventive concept exists.

Claims 13-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

The requirement is still deemed proper and is therefore made FINAL.

***Specification***

2. The disclosure is objected to because of the following informalities: the arrangement of the specification is not appropriate.

Appropriate correction is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

**Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 12 recites the limitation "the drag" in Line 4 of claim 12. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 13 is rejected because of its dependency and failure to remove the ambiguity of parent claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golden (US 5,351,359) in view of Georgallis (US 4,267,585).

Golden teaches a method for cleaning ropes, lines or similar items (read as elongated article, abstract) comprising the step of attaching around the ropes, lines or similar items a cleaning device (Fig.4, abstract) including a brush-like scrubbing medium (Fig.2, abstract).

Golden does not teach the steps of providing the cleaning device including a hydrodynamic drag structure, and towing an elongated article, whereby a drag created by said structure as the elongated article is moved along its longitudinal axis has the effect of moving the cleaning appliance along the elongated article.

Since it is well known in the brush cleaning art that in order to efficiency clean an elongated article such as ropes, lines, or similar items with a brush-like scrubbing medium, the brush-like scrubbing medium has to move along relative to a surface of the elongated articles to scrub away debris disposed on the surface of the elongated article. Thus, Georgallis teaches a method for relatively moving a device (Fig.1, #2) along a towed cable (Fig.1, #1, col.4, L.27) (col.1, L.67-68 and col.2, L.1-3) by providing the device with a hydrodynamic drag structure (col.1, L.68 and col.2, L.1) and drawing the cable through the device (col.2, L.2-3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Golden by adding the steps of providing a

hydrodynamic drag structure to the cleaning appliance; and towing the elongated article whereby a drag created by said structure as the elongated article is moved along its longitudinal axis has the effect of moving the cleaning appliance along the elongated article as inspired by Georgallis in order to reduce the manual operation time for cleaning the elongated article.

Golden does not specifically indicate cleaning a towed seismic streamer. However, since seismic streamer comprises an elongated structure, which is immersed in sea water for a long time and therefore is subject to fouling and Golden teaches cleaning of elongated structures (long chains, ropes, etc.), one skilled in the art would have found obvious to utilize the method of Golden to clean a towed seismic streamer with reasonable expectation of success.

For claim 13, both Golden and Georgallis do not teach the speed of movement of the appliance along the seismic streamer is in a range of between 0.5 and 2.5 meters per second. Note that the speed of movement of the appliance along the seismic streamer depends on the speed of towing the seismic streamer.

Regarding claim 13, reciting the speed of movement of the appliance along the seismic streamer is in a range of between 0.5 and 2.5 meters per second, it is noted that these parameters are result effective, because they affect the scrubbing power of the brush-like scrubbing medium, hence affecting the effectiveness of cleaning, and one skilled in the art would modify different variables to achieve optimum result, consult, *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN KO whose telephone number is (571)270-3726. The examiner can normally be reached on Monday to Thursday, 7:30am to 5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Kornakov can be reached on 571-272-1303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SK  
/Michael Kornakov/  
Supervisory Patent Examiner, Art Unit 1792